



SEAMARK DELIVERABLE 5.8: ENZYMES FOR TARGETED PRODUCTION OF KG SCALE OF SPECIALTY ALGINATES AND FUCOIDANS

Public summary of
confidential report

Morten Schiøtt¹, Anne S. Meyer¹

¹ Technical University of Denmark, Lyngby, Denmark.

Edited by:

Toninio Waelkens & Maya Miltell,
SUBMARINER Network for Blue
Growth EEIG, Berlin, Germany

Primary contact for further information: Morten Schiøtt, mosch@dtu.dk.

Reviewed by:

Urd Grandorf Bak, Ocean
Rainforest Sp/F, Faroe Islands

Summary:

DTU recombinantly expressed two carbohydrate-active enzymes from bacteria (Mef2 and AsAlgE6) for the depolymerisation of fucoidan and epimerization of alginate, respectively. The enzymes will be used for a demonstration scale conversion of fucoidan and alginate from *Saccharina latissima* for increased valorisation of these seaweed polysaccharides.

Due Date: 30.06.2025

Submission Date: 29.08.2025

Accepted Date: 29.08.2025

Deliverable Reference: D5.8

Work Package / Task:

WP5 / Task 5.5 Upscaling of an
enzymatic process for targeted
speciality, designer alginates and
fucoidan

Keywords:

algae, circular economy, seaweed-
based products, enzymes, scaling



This project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No 101060379. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union nor the European Research Executive Agency (REA). Neither the European Union nor REA can be held responsible for them.